



**City of Santa Clara
Building Inspection Division**

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WATER HEATER REQUIREMENTS

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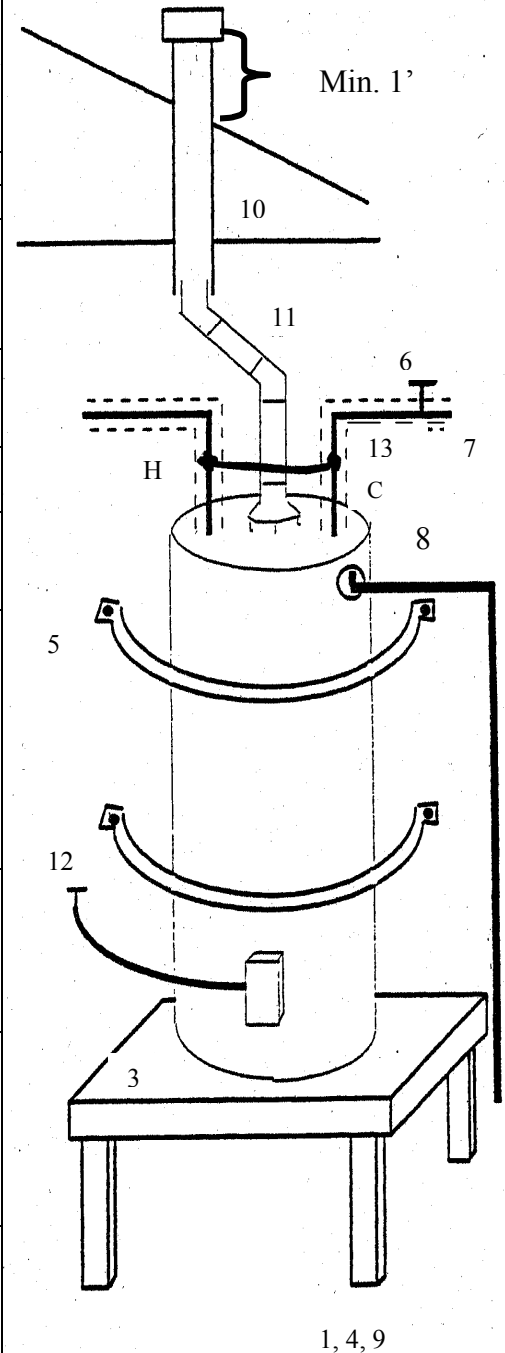
CITY OF SANTA CLARA

Inspection Division
1500 Warburton Avenue
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GAS WATER HEATER REQUIREMENTS

1. Location Access and working space (510, 511)	Prohibited in bathroom or bedroom. Working space at firebox 30x30 inches. Attic Location: Permanent ladder or stairs required. 24-inch walkway required. 30-inch access door. Water heater must be within 20 feet of access door. Exterior location: Heaters must be protected from the elements by enclosure in a water heater room. Heater must be accessible from a door min. 24 inch wide.
2. Protection	Protection when subject to path of vehicle (510).
3. 18-inch stand	Required when water heater is installed in a garage (510).
4. Corrosion resistant pan (Smitty Pan)	Required for installation in attic. Corrosion resistant $\frac{3}{4}$ -inch drain line required to approved location: branch tailpiece, exterior location, floor sink, floor mounted mop sink. T&P line may NOT drain to smitty pan (510).
5. Earthquake Straps	Required at upper and lower third of heater. Maintain 4-inch clearance above water heater controls. Approved listed strapping system or equal (510).
6. Shutoff Valve	A shutoff valve is required on the cold water supply (605).
7. Pipe Insulation	Pipe insulation is required on first 5 feet of hot and cold water pipe (2001 Residential Energy Efficiency Stds. Sec. 2.6.3).
8. T & P line	A temperature and pressure relief valve is required. $\frac{3}{4}$ inch drain line must run with fall to approved locations: exterior of building, deep floor sink, floor mounted mop sink. T & P must terminate between 6 and 24 inches of surface. A Watts 210 valve may be used where drain line cannot extend to the exterior. A pressure relief valve must be installed on the system in conjunction with the watts 210 valve (608).
9. Combustion Air	Where located in a confined space (less than 50 cubic feet of area for each 1000 BTU input rating of Water heater) a high and low combustion air opening must be provided within 12 inches of the top and bottom of the enclosure. Min. size 10 x 10 per opening (507).
10. Vent	A double wall (type B) vent must be provided with a min. 1 inch to combustibles. Min. 5 feet vertical required between vent collar and vent cap. Vent may have offsets of up to 45 degrees and one offset of up to 60 degrees. Vent must terminate in a listed vent cap (517 and vent listings). Vent stack minimum 5'.
11. Vent connector	Single wall vent connector allowed to connect water heater to its vent. Vent connector must be exposed and cannot run into or through concealed construction. Minimum accessible 6-inch clearance to combustibles. Min. pitch $\frac{1}{4}$ inch per foot (516).
12. Gas Connector	Accessible control valve with max. 3 foot flex connector required (1212). Connector must not be consealed.
13. Bonding	Bond Hot and Cold water lines. (1999 Nat. Electric Code Sec 250-104(a))



NOTE: () indicates Uniform Plumbing Code Section, unless otherwise noted.